

Regional Coordination of Habitat Identification Efforts

Needs and opportunities identified by Gulf States in Habitat Identification White Paper:

- ◆ “Many of the Gulf coast states feel as if they are managing their submerged aquatic resources using very sparse data and information. Although technologies for mapping underwater habitats are becoming more common, at this point in time, detailed maps of marine habitat types, locations, and uses are still lacking, making management difficult.”
- ◆ “Recent meetings have produced agreement that high resolution bathymetry (LIDAR from 1-120 ft) would be the best first step in habitat mapping as well as modeling water movement along the Gulf shelf.”

Federal Response: The Federal Workgroup proposes increased collaboration between Federal and state agencies to leverage existing resources and expertise for addressing habitat identification available at the NASA Stennis Space Center in Mississippi.

NASA Earth Observation System (EOS) research satellites provide environmental data relevant to the five priority areas identified by the Gulf of Mexico Alliance. In particular, several NASA Earth Observation System (EOS) satellites and research initiatives support studies of land processes; coastal processes, including river transport; land-ocean interactions; harmful algal blooms; and wetlands identification. NASA EOS research satellites provide data used for habitat identification, and to study changes in land cover, land use, and coastal environments. Change within the aforementioned regions can be detected by using tools such as airborne LIDAR, or space-based observations of optical properties over time. A combination of data from LandSat, MODIS, and high-resolution commercial satellites has been used successfully for land cover classification, detection of invasive species, and other habitat studies. The Applied Sciences Division of NASA supports the use of NASA data and models in decision support tools and systems of Federal and State agencies, and a representative is named here to work the interface between NASA research and researchers.

The Federal Workgroup proposes stronger collaborations between NASA, Naval Research Laboratory, EPA Gulf of Mexico Program, NOAA National Data Buoy Center, NOAA National Coastal Data Development Center, and NOAA National Ocean Service to aid in the mission of the Alliance. The location of these Federal offices at Stennis Space Center will facilitate the logistics involved in long-term collaborations between these Federal agencies and the Gulf States. Partnerships between these Federal agencies and the Gulf States will help decision makers at the state level identify data products, data sources, models, and research that may help address the five topic areas. A stronger collaboration between the Alliance and the Federal agencies located at Stennis Space Center may also accelerate the development of an Integrated Coastal Ocean Observing System in the Gulf of Mexico. Such a system will provide a critical foundation for management of Gulf of Mexico coastal areas.

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Federal Workgroup Co-leads: NASA and the Naval Research Laboratory

Other partners: NOAA, EPA Gulf of Mexico Program , USACE, DOD

This Federal Response Proposal represents an initial project idea from the 13 agencies represented on the Federal Workgroup, in response to the Gulf State Alliance white papers; it is meant to stimulate discussion, among the Gulf State Alliance and the Federal Workgroup, as they work toward the development of a draft Gulf Plan of Action. Implementation of this project idea is subject to further evaluation and the availability of funding.